

App. No. 10/617,461
Amend. Dated October 18, 2005
Reply to Office Action of June 14, 2005

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REMARKS/ARGUMENTS

I would like to thank Examiner Bonck for the courtesy extended during a telephone interview on October 17, 2005. During the interview the rejected claims, the prior art of record and the amendments present herein were generally discussed. No agreement was reached with respect to the proposed amendments for the claims.

In the Office Action claims 1, 3-7, 10-12, 16, 17 and 18 were rejected under 35 USC § 112, second paragraph, as being indefinite. The Examiner indicated that it was unclear in claims 1, 16 and 17 whether the friction lining has a spring characteristic in an area that is raised or whether the friction surface has a raised area that has a spring characteristic. Claim 1 has been amended to more clearly recite that the at least one area of the surface having a spring characteristic and this area is raised in comparison to the planar surface of the friction lining. It is submitted that this amendment to claim 1 makes it clear that the area of the surface having a spring characteristic is also raised with respect to the rest of the friction lining. In this amendment claims 16 and 17 have been canceled so there is no longer an issue with the definiteness of these claims. It is submitted that amended claim 1 is no longer indefinite and the Examiner is requested to withdraw this basis of rejection for the claims.

Claims 1, 4-6, 10-12, 16, 18 and 20 were 35 USC § 102 (b) as being unpatentable over the Bjerk et al. reference.

Applicants' claims define a force transmitting disk having a friction lining with at least one area of the friction lining surface have a spring characteristic and the at least one area is raised in comparison to the planar surface of the friction lining. The at least one raised area is compressed upon engagement of the friction lining whereby the at least one raised area is displaced to be in essentially the same plane of the essentially planar surface. The raised area of the surface of the friction lining is surrounded by one or more grooves.

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The Bjerk et al. reference discloses a friction plate has a friction material which is elastomeric in nature having a plurality of particles of a vitreous material intermixed therein. The vitreous particles form a plurality of asperities on the friction surface of the friction material. The asperities are essentially a roughness on the surface of the friction material and this roughness is used to retain a relatively thin film of fluid between the asperities and the mating surface of the reaction plate so that a hydrodynamic wedge of oil is present between the particles. The hydrodynamic film of fluid is used to support the load or pressure of engagement between the friction lining and the reaction plate during the initial engagement of the friction lining. When the rate of rotation between the reaction plate and the friction material decreases the hydrodynamic wedge is no longer sufficient to support the engagement pressure and the friction material comes into actual engagement with the reaction plate and some of the vitreous particles are deflected into the elastomeric material of the friction lining. However, the Bjerk et al. reference does not show a raised area on the friction lining that has a spring characteristic that is compressed upon engagement of the friction lining as defined in applicants' claim 1. In addition, the Bjerk reference does not show one or more grooves that are positioned around the raised surface area as defined in applicants' claims. Therefore, it is applicants' position that the Bjerk reference does not disclose or suggest the invention defined by applicants' amended claims. Accordingly, the Examiner is requested to withdraw this basis of rejection for the claims.

Claim 20 was rejected under 35 USC § 102 (b) over the Loeffler reference. As claim 20 was canceled as part of this amendment, there is no need to respond to this basis of rejection for the claim.

Claims 3, 7 and 17 were rejected under 35 USC § 103 (a) as being unpatentable over the Bjerk et al. reference in view of the Loeffler reference.

The Loeffler is directed to a clutch disk having an annular plate that is formed of a spring material. A plurality of projections are formed in the annular plate and the projections in the annular plate are displaced during the engagement of the clutch

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disk. Grooves are formed in the Loeffler reference in the resilient material of the annular plate. However, these grooves are not adjacent to a raised area in the friction lining where the raised area has a spring characteristic as defined in applicants' amended claims. In addition, there is no teaching or suggestion in the Loeffler reference that a hydrodynamic wedge can be used as part of the engagement process for the clutch disk. Accordingly, combining the teachings of the Loeffler reference with the teachings of the Bjerk et al. reference would result in a combination of incompatible technologies that would not function in the manner intended by either reference. It is applicants' position that the Loeffler reference does not supply the deficiencies of the previously discussed Bjerk et al. reference and that the Loeffler and Bjerk et al. references, taken individually or in combination, do not disclose or suggest the invention defined by applicants' amended claims. Accordingly, the Examiner is requested to withdraw this basis of rejection for the claims.

Claims 13, 14 and 19 were rejected under 35 USC § 103 (a) as being unpatentable over the Bjerk et al. reference in view of the Gannon reference.

The Gannon reference is directed to a disk brake for use on vehicles. The friction material that is used with disk brake of this reference has a stepped type of profile or a continuously decreasing profile. The friction material of the disk brake is progressively engaged by the friction surface so that defined portions of the friction surface are engaged in a progressive manner. This technology is used in bedding in the friction lining of the disk brake so that the bedding in process is done in a controlled fashion. However, the Gannon reference in column 4, lines 44-50 clearly states that a compressible or deformable friction material, such as cork, is not satisfactory for the construction of the friction elements. Instead, this reference recites that a substantially rigid and substantially incompressible material is used for the disk brake of this reference. It is applicants' position that the disk brake technology of this reference is not similar to the wet disk clutch application defined by applicants' amended claims and that the substantially rigid and incompressible friction material specified in this reference teaches away from the friction material having a spring like

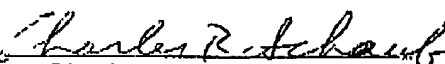
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characteristic as defined in applicants' amended claims. It is the applicants' position that the Gannon reference does not supply the deficiencies of the previously discussed Bjerk et al. reference and that the Gannon and Bjerk et al. references, taken individually or in combination, do not disclose or suggest applicants' claimed invention. Accordingly, the Examiner is requested to withdraw this basis of rejection for the claims.

In view of the amendments and arguments presented herein it is applicants' position that the claims patentably distinguish over the prior art of record. Accordingly, the Examiner is respectfully requested to issue a favorable action on the claims.

Respectfully submitted,
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